REPORTING OF CRITICAL AND ABNORMAL DIAGNOSTIC TEST RESULTS (93)

I. PURPOSE: The purpose of this policy is to establish procedures for the communication of critical and abnormal diagnostic test results to practitioners.

II. POLICY: Diagnostic test results are communicated to the ordering practitioner within a timeframe that allows prompt attention and appropriate action. The ordering practitioner further communicates these test results to their patients, so that they may participate in their health care decisions. Critical values must be transmitted by direct communication. Abnormal test results may be transmitted by electronic or direct communication. If the ordering practitioner is not available to receive critical/abnormal results, responsibility will fall upon the provider covering for the practitioner, or the Chief of Staff (COS), or designee. This policy shall represent the minimum requirement for reporting critical and abnormal values at this facility. No diagnostic test is defined as a critical test.

III. DEFINITIONS:

A. A critical value/result is a diagnostic finding that is associated with a high likelihood of short-term poor outcome and requires either immediate therapeutic intervention or close clinical monitoring.

B. An immediate (STAT) test is a test that requires rapid communication of the results even if the results are normal. The time interval to be measured (60 minutes) is from when the test is ordered to the reporting of the result.

C. Abnormal test result is a diagnostic finding that requires attention by the ordering practitioner but not necessarily in an immediate time frame.

D. Direct communication is transmission of test results by telephone or face-to-face conversation, or a hand carried report by messenger who assures documented delivery to a recipient.

E. Electronic communication is transmission of test results by electronic means (e.g. view alerts, e-mail, facsimile, etc.).

F. Ordering practitioner is a practitioner privileged to enter and sign orders for diagnostic tests.

IV. RESPONSIBILITIES:

A. The Director has overall responsibility for the implementation of the policy and for ensuring that all patients receive safe and appropriate care.

B. The COS will:

1. Ensure that a policy for communication of critical and abnormal results includes a

system of alternate practitioners in the event that the ordering practitioner is not available.

2. Ensure that critical values/results are available in a timely manner. Timely manner is defined at this facility as 15 minutes. The timeframe measured is the time of completion of the test to the time of notification of the provider.

3. Ensure that the medical staff responsible for interpretation of the diagnostic test, the cardiopulmonary staff, radiology staff, and the laboratory staff report test results and document the transmission of critical test results in the electronic record to include at a minimum:

a. Name of the test;

b. Date and time of communication of critical results;

c. Name of practitioner to whom results were conveyed;

d. Initials of the staff member that communicated the test result;

e. Read back of the critical value by the provider.

4. Ensure that periodic monitors are devised to monitor timeliness of result communication.

5. Review the monitors of test result communication and resolve process deficiencies with clinical staff.

C. The medical staff will:

1. Add or delete additional test results that are considered critical for implementation by laboratory staff.

2. Decide the target test values/reference limits for each test. This list is reviewed at least annually and as needed and ratified (Attachments A, B, and C).

D. Ordering practitioners will:

1. Enter the orders electronically unless the contingency plan for the computerized patient record system has been activated.

2. Include a history sufficient to meet the relevant appropriateness criteria for the ordered imaging test.

3. Take responsibility for results of any orders that have been placed.

4. Confirm the results of the critical values by “reading back” the results to the person communicating the critical values.

5. Inform the surrogate of critical and abnormal test result when the ordering practitioner is not available to review results in a timely manner.

6. Document changes in treatment plans in response to critical and abnormal test results in the medical record.

7. Discuss test results with their patients and document those discussions in the medical record.

E. Providers reading cardiac diagnostics, laboratory, and cardiopulmonary staff will:

1. Telephone immediately any critical cardiology or laboratory result to the patient's Primary Care Provider (PCP). Studies performed by and/or interpreted by outside or contract services will adhere to the same guidelines. Laboratory results performed and obtained by the reference laboratories during non-administrative hours are communicated by the reference laboratory directly to the Primary Care Coordinator (PCC) who will notify the Medical Officer of the Day (MOD).

2. In the event the ordering practitioner is not available, the Associate Chief of Staff (ACOS) will serve as the surrogate during normal administrative hours and the COS will serve as back-up. During non-administrative hours the MOD will be notified. If this call is unsuccessful, the PCC will be notified.

3. The time, means of communication, and name of the provider contacted is entered in the report or medical record as appropriate. Documentation verifying the read back of the critical results by the provider must also be made.

4. Important study findings that may require a change in patient management but not necessarily within an urgent timeframe may be communicated by either direct documented communication or by a view alert. View alerts are used for significant findings only; excessive use diminishes the importance of the alert.

F. Radiologists will:

1. Telephone immediately any critical radiology result to the PCP. Studies performed by and/or interpreted by outside or contract services will adhere to the same guidelines. VA Pittsburgh radiologists will utilize the VERIPHY Notification System for reporting critical values. This is a cascading notification system which will alert the PCP of a critical value. If no response, the system will then alert the ACOS. The COS or ACOS will follow up with the PCP as needed. The process for non-VA critical radiology results will follow a similar process. First the PCP will be contacted. If they are not able to be reached, the ACOS will be contacted, and if the ACOS is not able to be reached, the radiology department can be contacted directly.

2. During non-administrative hours the MOD will be notified. If this call is unsuccessful; the PCC will be notified.

3. When the radiology department staff is notified directly, they will notify the PCP of

the critical value and maintain an electronic documentation of the notification. The time, means of communication, and name of the provider contacted is entered in the report or medical record as appropriate. Documentation verifying the read back of the critical results by the provider must also be completed.

V. PROCEDURES:

A. The facility will maintain a policy to address the reporting of critical and abnormal laboratory, radiology, and cardiology diagnostic results.

B. The facility will review their local policy and diagnostic test values annually.

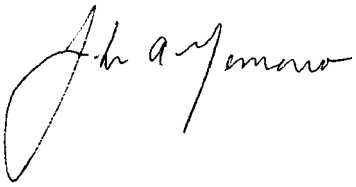
C. The radiology department will do a random audit of critical radiology results and report to the Medical Executive Committee on a quarterly basis.

VI. REFERENCES:

VHA Directive 2009-019, Ordering and Reporting Test Results.

College of American Pathologists, Laboratory Accreditation Program, Laboratory General Checklist, June 17, 2010.

VII. RESCISSION: Medical Center Memorandum PC-43 dated November 28, 2012.



JOHN A. GENNARO
Director

Attachments: A, B, and C

DISTRIBUTION: B

(Automatic Annual Review Date: November 14, 2016)

ATTACHMENT A

CRITICAL LABORATORY VALUES

Below is a list of laboratory critical values as agreed to by medical service and laboratory service. Review and concurrence has been received by the Medical Executive Committee.

HEMATOLOGY	<Less than	>Greater than
WBC	≤1.6 k/cmm	>25.0 k/cmm
HGB	<7 g/dL	>19 g/dL
HCT	<21%	≥60%
PLT	<20 K/cmm	>800 K/cmm
INR		>4.5
PTT		>135 seconds

CHEMISTRY	<Less than	>Greater than
Amikacin (Trough)		>8 ug/mL
Amikacin (Peak)		>35ug/mL
Ammonia		>250 ug/dL
BUN		>100 mg/dL
Calcium (Serum)	<6 mg/dL	>12 mg/dL
Carbamazepine		>15 ug/mL
Digoxin		>2.1 ng/mL
Dilantin		>30 ug/mL
Gentamicin (Trough)		>2 ug/mL
Gentamicin (Peak)		>11 ug/mL
Glucose	<50 mg/dl	>500 mg/dl
Ketone (Urine)		Presence of both 3+ urine ketone (>60 mg/dL as reported on Iris instrument) with 3+ urine glucose (300 mg/dL as also reported on Iris instrument)
Lactic Acid		>4.0 mmol//L
Lithium		>1.5 mmol/L
Magnesium	<1.1 mg/dL	>3.0 mg/dL
NAPA		>30 ug/mL
Phenobarbital		>50 ug/mL
Phosphorus	<1.0 mg/dL	>9.0 mg/dL
Potassium (K)	<3.0 meq/L Panic < 2.5 meq/L	>6 meq/L Panic Value > 6.5meq/L
Procainamide		>10 ug/mL
Quinidine		>7.0 ug/mL
Salicylate		>300 ug/ml

Sodium (NA)	120 meq/L	155 meq/L
Tacrolimus (FK 506)		>30 ng/mL
Theophylline		>30 ug/mL
Thyroxine T4		>15.0 ug/dL
Tobramycin (Trough)		>2 ug/mL
Tobramycin (Peak)		>12 ug/mL
Troponin		>0.5 ng/ml
TSH		>20 uIU/mL
Valproic Acid		>150 ug/mL
Vancomycin (Trough)		>20 ug/mL
Vancomycin (Peak)		>50 ug/mL

MICROBIOLOGY:

1. Any positive blood cultures.

2. The following organisms:

   a. Methicillin-Resistant Staphylococcus Aureus.

   b. Group A Beta Streptococcus.

   c. Salmonella/Shigella.

   d. Vancomycin-Resistant Enterococcus.

3. Organisms showing in otherwise sterile specimens (i.e. Spinal fluid, blood). This is with the exception of urine.

4. Positive AFB smears.

5. Positive Influenza A+/or B.

ANATOMIC PATHOLOGY

Diagnosis of new malignancies

ATTACHMENT B

CRITICAL CARDIAC DIAGNOSTIC VALUES

Below is a list of cardiac diagnostic critical values as agreed to by medical staff and cardiopulmonary service. Review and concurrence has been received by the Medical Executive Committee.

CHANGES IN EKG CONSISENT OR SUSPICIOUS OF:
Acute Myocardial Infarction
Bradycardia Rate < 40
Complete Heart Block
Multifocal PVC's
Tachycardia Rate > 150
Ventricular Tachycardia
Sinus Pauses > 3 seconds

HOLTER MONITOR FINDINGS CONSISTENT OR SUSPICIOUS OF:
Acute Myocardial Infarction
Bradycardia Rate < 40
Complete Heart Block
Multifocal PVC's
Tachycardia Rate > 150
Ventricular Tachycardia
Sinus Pauses $\geq$ 3 seconds

POSITIVE CARDIAC STRESS TEST

ATTACHMENT C

CRITICAL RADIOLOGY VALUES

I. Below is a list of radiology critical values as agreed to by medical staff and radiology service. Review and concurrence has been received by the Medical Executive Committee. Studies performed by and/or interpreted outside contract services will adhere to the same policy.

II. Findings that may require direct communication and urgent attention include, but are not limited to:

A. Any finding that has the potential to be life threatening or could cause serious harm, and that requires an urgent intervention or change in patient management.

B. Any finding that may result in prolongation of patient pain or discomfort.

C. Any finding that would result in the cancellation of on-going or imminent treatment.

III. Critical values in radiology which require immediate notification include, but are not limited to:

A. Chest Examinations:

1. Significant tube or line malposition:

    a. Bronchial placement of endotracheal tube

    b. Swan-ganz extending to within 5cm of pleura

2. New, unexpected pneumothorax

3. New pleural fluid post central line placement

4. Aortic dissection or tear

5. New mass or new cancer

B. Abdominal Exams (CT, Plain Films):

1. Free Air (unexpected)

2. Large bowel volvulus

3. Signs of bowel infarction

4. Retained object (i.e. sponge, clamp)

5. New mass or new cancer

C. Musculoskeletal Exams:

1. Significant fractures
2. Hip and Spine Fractures
3. Osteomyelitis
4. Septic joint
5. New mass or new cancer

D. Ultrasound:

1. Pseudo aneurism
2. Ectopic pregnancy
3. Hydronephrosis (unexpected)

E. Biliary Obstruction

F. New mass or new cancer

G. Head, Ears, Eyes, Nose, and Throat

1. Bleeding inside the skull
2. Epiglotitus
3. New mass or new cancer